

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

1. (Currently Amended) A wireless device, comprising:

a wireless interface supporting communication across a wireless connection;

a first communication interface for providing short range wireless interfaces;

a second communication interface for providing one of medium range wireless interface and wired interface; and

a controller connected to said wireless interface supporting a negotiation service and a communication service;

wherein said negotiation service provides interface negotiation for using said wireless interface to negotiate with another device to select ~~a first an appropriate~~ communication interface for communication of data with said another device,

wherein said negotiation service selects one of: (1) said first communication interface for direct communication between the wireless device and said another device, and (2) said second communication interface for indirect communication through a network,

~~wherein said negotiation service negotiates to select an appropriate communication interface for communication of said data with said another device,~~

wherein said first communication interface is a separate interface from said wireless interface used for interface negotiation, and

wherein said communication service provides control and management of communication with said another device across a connection established using said negotiation service_{,[[:]]} and

~~a second communication interface,~~

wherein a first connection opened using said negotiation service and said wireless interface is kept open while a second connection opened using said communication service and one of said first communication interface and said second communication interface is open.

2. (Original) The wireless device of claim 1, wherein:

said wireless interface support Bluetooth.

3. (Canceled)

4. (Previously Presented) The wireless device of claim 1, wherein:

said second communication interface supports Wi-Fi.

5. (Currently Amended) The wireless device of claim 1, wherein:

each of said wireless interface and said ~~second~~appropriate communication interface support respective types of wireless communication.

6. (Original) The wireless device of claim 5, further comprising:

a third communication interface supporting a wired connection.

7. (Currently Amended) The wireless device of claim 1, wherein:

said ~~second~~appropriate communication interface provides a higher data rate than said wireless interface.

8. (Currently Amended) The wireless device of claim 1, wherein:

said ~~second~~ appropriate communication interface uses more power than said wireless interface.

9. (Canceled)

10. (Original) The wireless device of claim 1, wherein:

said negotiation service provides interface negotiation automatically.

11. (Original) The wireless device of claim 10, wherein:

said negotiation service provides interface negotiation in response to a request by a user.

12. (Currently Amended) The wireless device of claim 10, wherein:

said negotiation service selects a said appropriate communication interface without user input.

13. (Currently Amended) The wireless device of claim 10, wherein:

said negotiation service selects a said appropriate communication interface using settings previously provided by a user.

14. (Original) The wireless device of claim 1, wherein:

said wireless interface supports a direct connection to said another device.

15. (Original) The wireless device of claim 14, wherein:
said direct connection is a newly established ad hoc network established with said
another device.

16. (Canceled)

17. (Original) The wireless device of claim 1, wherein:
said wireless interface supports receiving a beacon signal from a beacon source, and
said negotiation service uses said beacon signal to open communication.

18. (Original) The wireless device of claim 17, wherein:
said beacon signal indicates said another device as a target device and a target interface,
and
said another device is different from said beacon source.

19. (Currently Amended) A method of interface negotiation, comprising:
searching for a second device using a default wireless interface of a first device;
establishing a negotiation connection between said first device and said second device
using said default wireless interface;
negotiating to select a an appropriate communication interface for communicating data
between said first device and said second device using said negotiation connection,
wherein selecting an appropriate communication interface includes selecting one of:

(1) a first communication interface for direct connection between the first device and the second device, and (2) a second communication interface for indirect connection through a network,

wherein said communication interface is a separate interface from said default wireless interface used for providing negotiation connection;

establishing a communication connection using said selected communication interface;

communicating data between said first device and said second device using said communication connection,

~~wherein said negotiating to select a communication interface includes negotiating to select an appropriate communication interface for communicating said data between said first device and said second device, and~~

wherein said negotiation connection is open while said communication connection is open, and information on said negotiation connection is used to determine when to close the communication connection; and

closing said communication connection when the determination is made; wherein said default interface is a wireless interface.

20. (Original) The method of claim 19, further comprising:

searching for said second device using a secondary interface.

21. (Canceled)

22. (Currently Amended) The method of claim 19, wherein negotiating to select a ~~a~~an appropriate communication interface includes:

determining one or more available interfaces;

determining one or more compatible interfaces from among said one or more available interfaces; and

selecting one of said one or more compatible interfaces as said communication interface using one or more communication criteria.

23. (Original) The method of claim 22, wherein:

said communication criteria include data rate and power use.

24. (Currently Amended) The method of claim 22, wherein negotiating to select a ~~a~~an appropriate communication interface also includes:

selecting a communication mode.

25. (Original) The method of claim 24, wherein:

said communication mode indicates whether to use a direct connection between said first device and said second device or an indirect connection between said first device and said second device for said communication connection.

26. (Original) The method of claim 24, wherein:

said communication mode indicates a type of encryption to use for said communication connection.

27. (Original) The method of claim 19, further comprising:
receiving a beacon signal from a beacon source at said first device; and
determining a target device and a target interface using said beacon signal;
wherein said target device is said second device and said target interface is said default interface.

28. (Original) The method of claim 27, wherein:
said target device is different from said beacon source.

29. (Currently Amended) A system for interface negotiation, comprising:
means for searching for a second device using a default wireless interface of a first device;
means for establishing a negotiation connection between said first device and said second device using said default wireless interface;
means for negotiating to select ~~a~~an appropriate communication interface for communicating data between said first device and said second device using said negotiation connection,
wherein selecting an appropriate communication interface includes selecting one of:
(1) a first communication interface for direct connection between the first device and the second device, and (2) a second communication interface for indirect connection through a network,

wherein said communication interface is a separate interface from said default wireless interface used for providing negotiation connection;

means for establishing a communication connection using said selected communication interface;

means for communicating data between said first device and said second device using said communication connection,

~~wherein said means for negotiating selects an appropriate communication interface for communicating said data between said first device and said second device, and~~

wherein said negotiation connection is open while said communication connection is open, and information on said negotiation connection is used to determine when to close said communication connection; and

means for closing said communication connection; ~~wherein said default interface is a wireless interface~~ when the determination is made.

30. (Original) The system of claim 29, further comprising:

means for determining one or more available interfaces;

means for determining one or more compatible interfaces from among said one or more available interfaces; and

means for selecting one of said one or more compatible interfaces as said communication interface using one or more communication criteria.

31. (Original) The system of claim 30, further comprising:

means for selecting a communication mode.

32. (Original) The system of claim 29, further comprising:

means for receiving a beacon signal from a beacon source at said first device; and

means for determining a target device and a target interface using said beacon signal;

wherein said target device is said second device and said target interface is said default interface.

33. (Currently Amended) A computer program, stored on a tangible storage medium, for use in interface negotiation, the program comprising executable instructions that cause a computer to:

search for a second device using a default wireless interface of a first device;

establish a negotiation connection between said first device and said second device using said default wireless interface;

negotiate to select a-an appropriate communication interface for communicating data between said first device and said second device using said negotiation connection,

wherein selecting an appropriate communication interface includes selecting one of:

(1) a first communication interface for direct connection between the first device and the second device, and (2) a second communication interface for indirect connection through a network,

wherein said communication interface is a separate interface from said default wireless interface used for providing negotiation connection;

establish a communication connection using said selected communication interface;

communicate data between said first device and said second device using said communication connection,

~~wherein said step to negotiate to select a communication interface includes a step to negotiate to select an appropriate communication interface for communicating said data between said first device and said second device, and~~

wherein said negotiation connection is open while said communication connection is open, and information on said negotiation connection is used to determine when to close said communication connection; and

close said communication connection; ~~wherein said default interface is a wireless interface~~ when the determination is made.